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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/814,948

Applicant(s)

HART ET AL.

Examiner

JAMES A. THOMPSON

Art Unit

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 Feb 2008, 23 Jan 2008, 26 Oct 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-67 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/S508)
Paper No(s)/Mail Date 10/26/07, 1/23/08
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 04 February 2008 have been fully considered but they are not persuasive.

Regarding page 12 to page 14, line 7: Examiner did not state in the previous office action, mailed 04 October 2007, that Sugiyama (USPN 5,633,723) teaches determining a printed representation of the time-based media based on the *recognized* content. Rather, Examiner stated that Sugiyama teaches determining a printed representation of the time-based media based on the *captured* content [see page 3, lines 12-16 of said previous office action]. It is by combination with Krumm (USPN 6,611,622) that “determining a printed representation of the time-based media based on the recognized content” is taught. The manner in which this combination has been set forth, along with a clearly articulated motivation for combining Sugiyama and Krumm is set forth in said previous office action [see last 6 lines of page 3 to page 4, line 5 of said previous office action].

Regarding page 14, line 8 to page 15, line 11: As stated above, the combination of Sugiyama and Krumm teaches that the printed representation of the time-based media is determined based on the recognized content. Katsuo (USPN 5,721,883) is relied upon to teach performing parallel processing of image data. By performing image data processing in parallel, the image data being the recognized time-based media already taught by the combination of Sugiyama in view of Krumm, the image data will be processed at least in part on one system and at least in part on a second system. By combination with Sugiyama in view of Krumm, the media processing system as a whole would reside at least in part on the printing system and at least in part on the network device. One of ordinary skill in the art at the time of the invention would have been motivated to make such a combination since splitting up the video image data processing onto multiple processors increases the speed with which a user can obtain processed image data.

Regarding page 15, line 12 to page 19, line 8: Applicant's remaining arguments with respect to the dependent claims are based on the allegation that “determining a printed representation of the time-based media based on the recognized content” is not taught by the references. However, as shown above, “determining a printed representation of the time-based media based on the recognized content” is taught by the combination of Sugiyama in view of Krumm. The remaining independent claims are not allowable merely due to their respective dependencies since the independent claims have been shown to be fully taught by the combination of Sugiyama in view of Krumm and Katsuo.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-2, 4, 6, 12, 14, 29-32, 38, 40, 50-51, 58, 60 and 67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugiyama (USPN 5,633,723) in view of Krumm (USPN 6,611,622) and Katsuo (USPN 5,721,883).

Regarding claims 1 and 50: Sugiyama discloses a system for printing time-based media (figure 1 and column 3, lines 11-20 of Sugiyama), the system comprising: an interface (figure 1(11) of Sugiyama) for receiving time-based media from an external source (column 3, lines 11-17 of Sugiyama); a network including a printing system and a network device (as can be determined from figure 1 of Sugiyama – A video signal is received by the video printer from an external device. This constitutes a network. The printing system is the printer portion (30-33) of the video printer. The network device is the external device not shown in figure 1 of Sugiyama, but is used to obtain the video signal input.); a media processing system (figure 1(15) of Sugiyama) coupled to the interface (as can be seen in figure 1 of Sugiyama) to receive the time-based media (column 3, lines 26-29 of Sugiyama), the media processing system configured to capture content contained within the time-based media (column 3, lines 41-48 of Sugiyama) and determine a printed representation of the time-based media based on the captured content and an electronic representation of the time-based media corresponding to the printed representation (column 4, lines 24-42 of Sugiyama); a printed output system (figure 1(30-33) of Sugiyama) in communication with the media processing system (as can be seen in figure 1 of Sugiyama) to receive the printed representation, the printed output system producing a corresponding printed output from the printed representation of the time-based media (column 4, lines 35-42 of Sugiyama); and an electronic output system (figure 1(18-20) of Sugiyama) in communication with the media processing system (as can be seen in figure 1 of Sugiyama) to receive the electronic representation, the electronic output system producing a corresponding electronic output from the electronic representation of the time-based media (column 4, lines 24-35 of Sugiyama).

Art Unit: 2625

Sugiyama does not disclose expressly *recognizing* content contained within the time-based media; and that the media processing system resides at least in part on the printing system and at least in part on the network device.

Krumm discloses recognizing content contained within time-based media (column 8, lines 28-33 of Krumm).

Sugiyama and Krumm are analogous art since they are from the same field of endeavor, namely video printers and the processing and output of received video image data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to not only capture content, as taught by Sugiyama, but also recognize content within the video input data, as taught by Krumm. The motivation for doing so would have been that a user could have particularly desired content automatically captured, rather than having to perform the recognition and capture manually, which is much slower and considerably more tedious for the user. Thus, the system of Sugiyama would be improved by incorporating content recognition taught by Krumm. Therefore, it would have been obvious to combine Krumm with Sugiyama.

Sugiyama in view of Krumm does not disclose expressly that the media processing system resides at least in part on the printing system and at least in part on the network device.

Katsuo discloses performing parallel processing of image data (figure 1 and column 3, lines 30-49 of Katsuo), and thus processing image data at least in part on one system and at least in part on a second system.

Sugiyama in view of Krumm is analogous art with respect to Katsuo since they are from the same field of endeavor, namely the processing of digital image data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to perform processing of the received video image data in parallel on both the printing system and the network device. Thus, the media processing system as a whole would reside at least in part on the printing system and at least in part on the network device. The motivation for doing so would have been that splitting up the video image data processing onto multiple processors increases the speed with which a user can obtain processed image data. Therefore, it would have been obvious to combine Katsuo with Sugiyama in view of Krumm to obtain the invention as specified in claims 1 and 50.

Further regarding claim 50: The method of claim 50 is performed by the system of claim 1.

Further regarding claim 2: Katsuo discloses that the network device is a personal computer (column 5, lines 23-33 of Katsuo).

Further regarding claim 4: Katsuo discloses a remote external service system coupled to the network (figure 1(10) of Katsuo), the external service system in communication with the media processing system for performing at least some processing steps for the media (column 5, lines 23-32 of Katsuo - time-based media *as per* combination with Sugiyama).

Regarding claim 29: Sugiyama discloses that the network device includes a user interface that provides information to a user about at least one of the printed representation and the electronic representation of the time-based media (column 3, lines 45-48 of Sugiyama), the user interface further accepting input from a user to cause the media processing system to modify at least one of the printed representation and the electronic representation of the time-based media (column 3, lines 57-61 of Sugiyama).

Regarding claim 30: Sugiyama discloses the media processing system determines at least one of the printed representation and the electronic representation (column 4, lines 24-42 of Sugiyama).

Sugiyama in view of Krumm does not disclose expressly that said determination is with assistance from an external computing device.

Katsuo discloses performing image processing over a plurality of processors (column 4, lines 22-33 of Katsuo).

Sugiyama in view of Krumm is analogous art with respect to Katsuo since they are from the same field of endeavor, namely the processing of digital image data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to perform processing (determination) of the printed and/or electronic representations with assistance from an external (parallel) computing device. The motivation for doing so would have been that splitting up the video image data processing onto multiple processors increases the speed with which a user can obtain processed image data. Therefore, it would have been obvious to combine Katsuo with Sugiyama in view of Krumm to obtain the invention as specified in claim 30.

Regarding claim 31: Sugiyama discloses a networked printing system (figure 1 of Sugiyama) comprising: a network (figure 1(video signal) of Sugiyama – video signal is received by the video printer from an external device – this constitutes a network); a printing device coupled to the network (figure 1 of Sugiyama), the printing device including: an input source (figure 1(11) of Sugiyama) for receiving time-based media (column 3, lines 11-17 of Sugiyama), a first output source (figure 1(30-33) of Sugiyama) coupled to the input source (as can be seen in figure 1 of Sugiyama), the first output source producing a printed representation of the time-based media (column 4, lines 35-42 of Sugiyama), and a second output source (figure 1(18-20) of Sugiyama) coupled to the input source (as can be seen in figure 1 of

Art Unit: 2625

Sugiyama), the second output source producing an electronic representation of the time-based media (column 4, lines 24-35 of Sugiyama), the electronic representation of the time-based media corresponding to the printed representation of the time-based media (column 4, lines 35-42 of Sugiyama); wherein the printing device is configured to perform media processing to capture content contained within the time-based media (column 3, lines 41-48 of Sugiyama) and to produce the printed representation based on the captured content and the electronic representation corresponding to the printed representation (column 4, lines 24-42 of Sugiyama).

Sugiyama does not disclose expressly a computing device coupled to the printing device via the network, wherein the computing device is configured to perform media processing *in cooperation with* the printing device to *recognize* content contained within the time-based media and to produce the printed representation based on the *recognized* content and the electronic representation corresponding to the printed representation, wherein the media processing is performed at least partially by the printing system and at least partially by the network device.

Krumm discloses recognizing content contained within time-based media (column 8, lines 28-33 of Krumm).

Sugiyama and Krumm are analogous art since they are from the same field of endeavor, namely video printers and the processing and output of received video image data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to not only capture content, as taught by Sugiyama, but also recognize content within the video input data, as taught by Krumm. The motivation for doing so would have been that a user could have particularly desired content automatically captured, rather than having to perform the recognition and capture manually, which is much slower and considerably more tedious for the user. Thus, the system of Sugiyama would be improved by incorporating content recognition taught by Krumm. Therefore, it would have been obvious to combine Krumm with Sugiyama.

Sugiyama in view of Krumm does not disclose expressly a computing device coupled to the printing device via the network, wherein the computing device is configured to perform media processing *in cooperation with* the printing device to recognize content contained within the time-based media and to produce the printed representation based on the recognized content and the electronic representation corresponding to the printed representation, wherein the media processing is performed at least partially by the printing system and at least partially by the network device.

Katsuo discloses coupling a first computing system and a second computing system over a network and performing parallel processing of image data (figure 1 and column 3, lines 30-49 of Katsuo),

and thus processing image data at least partially on one computing system and at least partially on a second computing system, said first and second computing systems processing in cooperation with each other.

Sugiyama in view of Krumm is analogous art with respect to Katsuo since they are from the same field of endeavor, namely the processing of digital image data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to perform processing of the received video image data in parallel on both the printing system and the network device. Thus, a computing device (first computing system) is coupled to the printing device (second computing device) via the network, wherein the computing device (first computing system) is configured to perform media processing *in cooperation with* the printing device (second computing system) to recognize content contained within the time-based media (as taught by Krumm) and to produce the printed representation based on the recognized content and the electronic representation corresponding to the printed representation (as taught by Sugiyama in view of Krumm), wherein the media processing is performed at least partially by the printing system (second computing device) and at least partially by the network device (first computing device). The motivation for doing so would have been that splitting up the video image data processing onto multiple processors increases the speed with which a user can obtain processed image data. Therefore, it would have been obvious to combine Katsuo with Sugiyama in view of Krumm to obtain the invention as specified in claim 31.

Regarding claims 6, 32 and 51: Sugiyama discloses that the interface comprises a single communication interface allowing the system to be communicatively coupled to an electronic device, the electronic device providing the time-based media to the system (column 3, lines 15-20 of Sugiyama).

Regarding claims 12, 38 and 58: Sugiyama discloses that said interface comprises embedded screen capture hardware (figure 1(12) and column 3, lines 12-16 and lines 20-24 of Sugiyama).

Regarding claims 14, 40 and 60: Sugiyama discloses that said interface comprises an embedded video recorder (figure 1(11) of Sugiyama), wherein the external source of media (figure 1("Video Signal") of Sugiyama) is a series of images captured by the embedded video recorder, converted into an electronic format (column 3, lines 12-17 of Sugiyama), and then provided to the media processing system (column 3, lines 16-20 of Sugiyama).

Regarding claim 67: Sugiyama discloses that producing the electronic output comprises generating a video signal for playback by a display system (figure 1(18-20) and column 4, lines 24-34 of Sugiyama).

Art Unit: 2625

4. Claims 3, 5 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugiyama (USPN 5,633,723) in view of Krumm (USPN 6,611,622), Katsuo (USPN 5,721,883), and Chang (USPN 6,167,033).

Regarding claims 3 and 33: Sugiyama in view of Krumm and Katsuo does not disclose expressly that the network is a local area network,

Chang discloses transmitting digital data packets over a local area network (figure 5; column 1, lines 13-16; and column 6, lines 29-39 of Chang).

Sugiyama in view of Krumm and Katsuo is analogous art with respect to Chang since they are from similar problem solving areas, namely how to efficiently transmit digital image/video data between a plurality of different computational devices. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to specifically use a local area network as the network. The suggestion for doing so would have been that a local area network is a common type of network for connecting a plurality of digital computational devices that are located physically close to each other. Therefore, it would have been obvious to combine Chang with Sugiyama in view of Krumm and Katsuo to obtain the invention as specified in claims 3 and 33.

Further regarding claim 5: Chang discloses that the external service system (taught by Sugiyama and corresponding to an external system discussed by Chang) is coupled to the network by the Internet (column 1, lines 39-50 of Chang).

5. Claims 7-8, 15, 23, 34, 41, 49, 52-54 and 61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugiyama (USPN 5,633,723) in view of Krumm (USPN 6,611,622), Katsuo (USPN 5,721,883), and Hymel (US Patent Application Publication 2003/0220988 A1).

Regarding claims 7 and 52: Sugiyama in view of Krumm and Katsuo does not disclose expressly that the interface comprises a removable media storage reader.

Hymel discloses providing video signal data at an interface using a removable storage reader (para. 10, lines 14-15 and lines 20-21 of Hymel – *DVD is a removable data storage storing video signals and outputting the video signals through an interface*).

Sugiyama in view of Krumm and Katsuo is analogous art with respect to Hymel because they are from similar problem solving areas, namely the control of data storage and output. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use at the interface a DVD drive. The suggestion for doing so would have been that DVDs are a common form of video data media.

Therefore, it would have been obvious to combine Hymel with Sugiyama in view of Krumm and Katsuo to obtain the invention as specified in claims 7 and 52.

Regarding claims 8, 34, 53 and 54: Sugiyama in view of Krumm and Katsuo does not disclose expressly that the input source (at the interface) comprises a media input device selected from a group consisting of: a removable media storage reader, a DVD reader, a video cassette tape reader, a CD reader, an audio cassette tape reader, and a flash card reader.

Hymel discloses an input source (at an interface) comprising a media input device (para. 10, lines 1-5 of Hymel) selected from a group consisting of: removable media storage reader (para. 10, lines 14-15 and lines 19-20 of Hymel – *compact discs used in compact disc devices are well-known to be removable media storage readers*); a DVD reader (para. 10, lines 14-15 and lines 20-21 of Hymel), a video cassette tape reader (digital camcorder, which, as is well-known in the art, uses a digital video (DV) cassette tape) (para. 10, lines 14-15 and line 20 of Hymel), a CD reader (para. 10, lines 14-15 and lines 19-20 of Hymel), an audio cassette tape reader (para. 10, lines 14-15 and line 19 of Hymel – *audio cassette tape reader is a type of audio player, MP3 player is merely an example*), and a flash card reader (para. 10, lines 14-15 and lines 19-20 of Hymel – *MP3 players and digital cameras generally use flash card memory*).

Sugiyama in view of Krumm and Katsuo is analogous art with respect to Hymel because they are from similar problem solving areas, namely the control of data storage and output. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have the input device be a removable media storage reader, a DVD reader, a video cassette tape reader, a CD reader, an audio cassette tape reader, and/or a flash card reader, as taught by Hymel. The motivation for doing so would have been to allow a user to connect a variety of different types of peripheral devices to an overall system, thus allowing the user to perform a variety of functions (para. 2, lines 1-6 of Hymel). Therefore, it would have been obvious to combine Hymel with Sugiyama in view of Krumm and Katsuo to obtain the invention as specified in claims 8, 34, 53 and 54.

Regarding claims 15, 41 and 61: Sugiyama in view of Krumm and Katsuo does not disclose expressly that the interface comprises an embedded audio recorder, wherein the external source of media is a series of sounds that are converted into an electrical format by the embedded audio recorder and then provided to the media processing system.

Hymel discloses an embedded (para. 10, lines 22-26 of Hymel) audio recorder (para. 10, lines 14-15 and line 19 of Hymel). As is abundantly well-known in the art, an embedded audio recorder input into a computerized media processing system inputs, as an external source of media, a series of sounds that are

converted into an electrical format by the embedded audio recorder and then provided to the media processing system.

Sugiyama in view of Krumm and Katsuo is analogous art with respect to Hymel because they are from the same field of endeavor, namely the control and processing of time-based media data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include an embedded audio recorder as part of the interface. The motivation for doing so would have been to allow a user to connect another one of a variety of different types of peripheral devices, thus allowing the user to perform one more of a variety of functions (para. 2, lines 1-6 of Hymel). Therefore, it would have been obvious to combine Hymel with Sugiyama in view of Krumm and Katsuo to obtain the invention as specified in claims 15, 41 and 61.

Regarding claims 23 and 49: Sugiyama in view of Krumm and Katsuo does not disclose expressly that the electronic output system comprises an embedded web page display.

Hymel discloses an embedded web page display (figure 1(130) and para. 11, lines 1-10 of Hymel).

Sugiyama in view of Krumm and Katsuo is analogous art with respect to Hymel because they are from the same field of endeavor, namely the control and processing of time-based media data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include an embedded web page display as part of said electronic output system. The motivation for doing so would have been to allow a user to display a web page, which is simply one of a plurality of different types of desirable output (para. 2, lines 1-6 of Hymel). Therefore, it would have been obvious to combine Hymel with Sugiyama in view of Krumm and Katsuo to obtain the invention as specified in claims 23 and 49.

6. Claims 9, 25-26, 35 and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugiyama (USPN 5,633,723) in view of Krumm (USPN 6,611,622), Katsuo (USPN 5,721,883), and Stevens (US Patent Application Publication 2002/0010641 A1).

Regarding claims 9, 35 and 55: Sugiyama in view of Krumm and Katsuo does not disclose expressly that the external source is a media broadcaster, and wherein the interface comprises a media broadcast receiver that can be tuned to a media broadcast.

Stevens discloses an external source that is a media broadcaster, wherein the interface comprises a media broadcast receiver that can be tuned to a media broadcast (figure 3(110) and para. 36, lines 1-8 of Stevens).

Sugiyama in view of Krumm and Katsuo is analogous art with respect to Stevens because they are from the same field of endeavor, namely the control and processing of time-based media data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to configure the interface taught by Sugiyama to receive a media broadcast from a media broadcast receiver (radio), as taught by Stevens. The motivation for doing so would have been to allow users to retrieve desired distributions of audio and video data over a controlled broadcast (para. 4, lines 1-5 of Stevens). Therefore, it would have been obvious to combine Stevens with Sugiyama in view of Krumm and Katsuo to obtain the invention as specified in claims 9, 35 and 55.

Regarding claims 25 and 26: Sugiyama in view of Krumm and Katsuo does not disclose expressly that said multimedia processing system comprises an embedded audio encryption module and an embedded video encryption module.

Stevens discloses an embedded audio encryption module (para. 54, lines 1-4 and para. 57, lines 3-4 of Stevens) and an embedded video encryption module (para. 54, lines 1-4 of Stevens).

Sugiyama in view of Krumm and Katsuo is analogous art with respect to Stevens because they are from the same field of endeavor, namely the control and processing of time-based media data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include the embedded audio encryption module and the embedded video encryption module taught by Stevens as part of said multimedia processing system. The motivation for doing so would have been to allow users to retrieve desired distributions of audio and video data over a controlled broadcast (para. 4, lines 1-5 of Stevens). Therefore, it would have been obvious to combine Stevens with Sugiyama in view of Krumm and Katsuo to obtain the invention as specified in claims 25 and 26.

7. Claims 10, 36 and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugiyama (USPN 5,633,723) in view of Krumm (USPN 6,611,622), Katsuo (USPN 5,721,883), Stevens (US Patent Application Publication 2002/0010641 A1), Hymel (US Patent Application Publication 2003/0220988 A1), and McCarthy (US Patent 6,296,693 B1).

Regarding claims 10, 36 and 56: Sugiyama in view of Krumm and Katsuo does not disclose expressly that the interface comprises an embedded receiver selected from a group consisting of: an embedded TV receiver, an embedded radio receiver, an embedded short-wave radio receiver, an embedded satellite radio receiver, an embedded two-way radio, and an embedded cellular phone.

Art Unit: 2625

Stevens discloses an embedded TV receiver (figure 3(110) and para. 36, lines 1-8 of Stevens), an embedded radio receiver (para. 36, lines 1-8 of Stevens), and an embedded satellite radio receiver (para. 36, lines 1-8 of Stevens) available for selection by a user (para. 36, lines 6-10 of Stevens).

Sugiyama in view of Krumm and Katsuo is analogous art with respect to Stevens because they are from the same field of endeavor, namely the control and processing of time-based media data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have an embedded TV receiver, an embedded radio receiver, and an embedded satellite radio receiver available for selection at the interface, as taught by Stevens. The motivation for doing so would have been to allow users to retrieve desired distributions of audio and video data over a controlled broadcast (para. 4, lines 1-5 of Stevens). Therefore, it would have been obvious to combine Stevens with Sugiyama in view of Krumm and Katsuo.

Sugiyama in view of Krumm, Katsuo and Stevens does not disclose expressly that said group consists of not only an embedded TV receiver, an embedded radio receiver, and an embedded satellite radio receiver, but also an embedded short-wave radio receiver, an embedded two-way radio, and an embedded cellular phone.

Hymel discloses a cellular phone as an input device (para. 10, lines 14-15 of Hymel).

Sugiyama in view of Krumm, Katsuo and Stevens is analogous art with respect to Hymel because they are from similar problem solving areas, namely the control of data storage and output. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have the cellular phone taught by Hymel embedded and selectable, as taught by Stevens. The motivation for doing so would have been to allow a user to connect a variety of different types of peripheral devices to an overall system, thus allowing the user to perform a variety of functions (para. 2, lines 1-6 of Hymel). Therefore, it would have been obvious to combine Hymel with Sugiyama in view of Krumm, Katsuo and Stevens.

Sugiyama in view of Krumm, Katsuo, Stevens and Hymel does not disclose expressly that said group consists of not only an embedded TV receiver, an embedded radio receiver, an embedded satellite radio receiver, and an embedded cellular phone, but also an embedded short-wave radio receiver, and an embedded two-way radio.

McCarthy discloses including a two-way (CB) radio (column 7, lines 13-16 and lines 21-23 of McCarthy) and a radio receiver for receiving short wave radio signals (column 7, lines 13-16 and lines 21-23 of McCarthy).

Sugiyama in view of Krumm, Katsuo, Stevens and Hymel is combinable with McCarthy because they are from similar problem solving areas, namely the control of data communication hardware. At the

Art Unit: 2625

time of the invention, it would have been obvious to a person of ordinary skill in the art to include the two-way radio and the short-wave radio taught by McCarthy in the group of selectable embedded receivers. The motivation for doing so would have been to provide the user with means of personal communication. Therefore, it would have been obvious to combine McCarthy with Sugiyama in view of Krumm, Katsuo, Stevens and Hymel to obtain the invention as specified in claims 10, 36 and 56.

8. Claims 11, 37 and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugiyama (USPN 5,633,723) in view of Krumm (USPN 6,611,622), Katsuo (USPN 5,721,883), Federspiel (US Patent 5,170,935), Baron (US Patent 5,940,776), and McCarthy (US Patent 6,296,693 B1).

Regarding claims 11, 37 and 57: Sugiyama in view of Krumm and Katsuo does not disclose expressly that the interface comprises an embedded receiver selected from a group consisting of an embedded heat sensor, an embedded humidity sensor, an embedded National Weather Service radio alert receiver, and an embedded TV Emergency Broadcast System (EBS) alert monitor.

Federspiel discloses selecting between an embedded heat sensor (column 12, lines 10-18 of Federspiel) and an embedded humidity sensor (column 12, lines 21-24 of Federspiel).

Sugiyama in view of Krumm and Katsuo is analogous art with respect to Federspiel because they are from similar problem solving areas, namely the control and processing of digital time-based data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to select from among an embedded heat sensor and an embedded humidity sensor, as taught by Federspiel. The motivation for doing so would have been to be able to control the environmental conditions in which a user is present (column 2, lines 5-9 of Federspiel). Therefore, it would have been obvious to combine Federspiel with Sugiyama in view of Krumm and Katsuo.

Sugiyama in view of Krumm, Katsuo and Federspiel does not disclose expressly that said group consists not only of an embedded heat sensor and an embedded humidity sensor, but also of an embedded National Weather Service radio alert receiver, and an embedded TV Emergency Broadcast System (EBS) alert monitor.

Baron discloses an embedded National Weather Service radio alert receiver (column 5, lines 45-49 and lines 61-65 of Baron).

Sugiyama in view of Krumm, Katsuo and Federspiel is analogous art with respect to Baron because they are from similar problem solving areas, namely the control and processing of digital time-based data. At the time of the invention, it would have been obvious to a person of ordinary skill in the

Art Unit: 2625

art to include the embedded National Weather Service radio alert receiver taught by Baron in the group of receivers from which a user can select. The motivation for doing so would have been so that a user can stay informed about the latest weather conditions and possible weather emergencies (column 1, lines 23-31 of Baron). Therefore, it would have been obvious to combine Baron with Sugiyama in view of Krumm, Katsuo and Federspiel.

Sugiyama in view of Krumm, Katsuo, Federspiel and Baron does not disclose expressly that said group consists not only of an embedded heat sensor, an embedded humidity sensor, and an embedded National Weather Service radio alert receiver, but also of an embedded TV Emergency Broadcast System (EAS) alert monitor.

McCarthy discloses an embedded TV Emergency Broadcast System (EBS) alert monitor (column 7, lines 13-16 and lines 18-21 of McCarthy).

Sugiyama in view of Krumm, Katsuo, Federspiel and Baron is analogous art with respect to McCarthy because they are from similar problem solving areas, namely the control and processing of digital time-based data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include the embedded TV Emergency Broadcast System (EBS) alert monitor taught by McCarthy in the group of receivers from which a user can select. The motivation for doing so would have been to keep the user alerted to any emergency conditions (column 7, lines 15-18 of McCarthy). Therefore, it would have been obvious to combine McCarthy with Sugiyama in view of Krumm, Katsuo, Federspiel and Baron to obtain the invention as specified in claims 11, 37 and 57.

9. Claims 13, 27-28, 39 and 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugiyama (US Patent 5,633,723) in view of Krumm (USPN 6,611,622), Katsuo (USPN 5,721,883), and Chino (US Patent 6,118,888).

Regarding claims 13, 39 and 59: Sugiyama in view of Krumm and Katsuo does not disclose expressly that the interface comprises an ultrasonic pen capture device.

Chino discloses an ultrasonic pen capture device (figure 3(102i) and column 7, lines 14-16 of Chino).

Sugiyama in view of Krumm and Katsuo is analogous art with respect to Chino because they are from the same field of endeavor, namely the control and processing of digital data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to capture input data using an ultrasonic pen capture device, as taught by Chino. The suggestion for doing so would have been that an electronic pen is simply another useful output device that provides digital data a user may wish to obtain

(figure 3 and column 6, lines 66-67 of Chino). Therefore, it would have been obvious to combine Chino with Sugiyama in view of Krumm and Katsuo to obtain the invention as specified in claims 13, 39 and 59.

Regarding claim 27: Sugiyama in view of Krumm and Katsuo does not disclose expressly that said multimedia processing system comprises an embedded audio sound localization module.

Chino discloses an embedded audio sound localization module (column 13, lines 5-14 of Chino). By using the gaze object detection portion of the multi-modal interface apparatus, the audio sound localization is determined.

Sugiyama in view of Krumm and Katsuo is analogous art with respect to Chino because they are from the same field of endeavor, namely the control and processing of time-based media data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include the embedded audio sound localization module taught by Chino as part of the overall multimedia processing system. The motivation for doing so would have been to ensure that user input is intended, and the user is not speaking to someone else (column 1, lines 52-58 of Chino). Therefore, it would have been obvious to combine Chino with Sugiyama in view of Krumm and Katsuo to obtain the invention as specified in claim 27.

Regarding claim 28: Sugiyama in view of Krumm and Katsuo does not disclose expressly that said multimedia processing system comprises an embedded video motion detection module.

Chino discloses an embedded video motion detection module (figure 3(102f) and column 7, lines 33-38 of Chino).

Sugiyama in view of Krumm and Katsuo is combinable with Chino because they are from the same field of endeavor, namely the control and processing of time-based media data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include the embedded video motion detection module taught by Chino as part of the overall multimedia processing system. The suggestion for doing so would have been that detection of a user's motion and gestures is simply another useful electronic means to input data into a computerized system (figure 3 and column 7, lines 2-11 of Chino). Therefore, it would have been obvious to combine Chino with Sugiyama in view of Krumm and Katsuo to obtain the invention as specified in claim 28.

Art Unit: 2625

10. Claims 16, 21-22, 24, 42, 47-48, 62 and 66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugiyama (US Patent 5,633,723) in view of Krumm (USPN 6,611,622), Katsuo (USPN 5,721,883), and Korman (US Patent 6,308,887 B1).

Regarding claims 16, 42 and 62: Sugiyama in view of Krumm and Katsuo does not disclose expressly that said electronic output system is configured to write said electronic representation to a removable media storage device.

Korman discloses outputting digital multimedia data to a removable media storage device (column 7, lines 31-35 and column 10, lines 28-31 of Korman).

Sugiyama in view of Krumm and Katsuo is analogous art with respect to Korman because they are from the same field of endeavor, namely the control and processing of multi-media data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to write said electronic representation to the removable media storage device taught by Korman. The motivation for doing so would have been to provide a convenient, transportable computer medium for the digital data comprising said electronic representation (column 7, lines 33-35 of Korman). Therefore, it would have been obvious to combine Korman with Sugiyama in view of Krumm and Katsuo to obtain the invention as specified in claims 16, 42 and 62.

Regarding claims 21 and 47: Sugiyama in view of Krumm and Katsuo does not disclose expressly that said electronic output system is coupled to a speaker system and sends an audio signal to the speaker system.

Korman discloses outputting audio data using a speaker system as a peripheral device (figure 2 (310) and column 7, lines 47-54 of Korman). In order for said speaker system to operate as an output, sending an audio signal to said speaker system is inherent.

Sugiyama in view of Krumm and Katsuo is analogous art with respect to Korman because they are from the same field of endeavor, namely the control and processing of multi-media data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to output audio data to a connected speaker system, as taught by Korman. The motivation for doing so would have been to provide the appropriate output format if audio output is desired. Therefore, it would have been obvious to combine Korman with Sugiyama in view of Krumm and Katsuo to obtain the invention as specified in claims 21 and 47.

Further regarding claims 22 and 48: Korman discloses that said electronic output system comprises an embedded sound player for generating the audio signal (column 5, lines 30-34 of Korman).

Regarding claim 24: Sugiyama in view of Krumm and Katsuo does not disclose expressly that said media processing system comprises an embedded multimedia server.

Korman discloses an embedded multimedia server (figure 2(10) and column 3, lines 48-56 of Korman).

Sugiyama in view of Krumm and Katsuo is analogous art with respect to Korman because they are from the same field of endeavor, namely the control and processing of multi-media data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include a multi-media server in the overall media processing system, as taught by Korman. The motivation for doing so would have been to provide control and communication relay for the multi-media processing devices comprising the media processing system (column 3, lines 49-52 of Korman). Therefore, it would have been obvious to combine Korman with Sugiyama in view of Krumm and Katsuo to obtain the invention as specified in claim 24.

Regarding claim 66: Sugiyama in view of Krumm and Katsuo does not disclose expressly that producing the electronic output comprises generating an audio signal for playback by a speaker system.

Korman discloses producing an electronic output by generating an audio signal for playback by a speaker system (figure 2 (310) and column 7, lines 47-54 of Korman – *in order for said speaker system to operate as an output, generating an audio signal is inherent*).

Sugiyama in view of Ishikawa is analogous art with respect to Korman because they are from the same field of endeavor, namely the control and processing of multi-media data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to output audio data to a connected speaker system, as taught by Korman. The motivation for doing so would have been to provide the appropriate output format if audio output is desired. Therefore, it would have been obvious to combine Korman with Sugiyama in view of Ishikawa to obtain the invention as specified in claim 66.

11. Claims 17, 43 and 63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugiyama (US Patent 5,633,723) in view of Krumm (USPN 6,611,622), Katsuo (USPN 5,721,883), Korman (US Patent 6,308,887 B1), Hymel (US Patent Application Publication 2003/0220988 A1), Kleinrock (US Patent 5,936,542), and Gerber (US Patent 5,568,406).

Regarding claims 17, 43 and 63: Sugiyama in view of Krumm, Katsuo and Korman does not disclose expressly that said removable storage device is selected from a group consisting of a DVD, a

Art Unit: 2625

video cassette tape, a CD, an audio cassette tape, a flash card, a computer disk, an SD disk, and a computer-readable medium.

Hymel discloses a removable storage device selected from among a DVD (para. 10, lines 14-15 and lines 20-21 of Hymel), a video cassette tape (digital camcorder, which, as is well-known in the art, uses a digital video (DV) cassette tape) (para. 10, lines 14-15 and line 20 of Hymel), a CD (para. 10, lines 14-15 and lines 19-20 of Hymel), and an audio cassette tape (audio cassette tape reader is a type of audio player, MP3 player is merely an example) (para. 10, lines 14-15 and line 19 of Hymel), a computer disk (para. 19, lines 8-9 of Hymel), and a computer-readable medium (para. 19, lines 8-9 of Hymel).

Sugiyama in view of Krumm, Katsuo and Korman is analogous art with respect to Hymel because they are from similar problem solving areas, namely the control of data storage and output. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have available for selection a DVD, a video cassette tape, a CD, an audio cassette tape, a computer disk, and a computer-readable medium. The motivation for doing so would have been to allow a user to connect a variety of different types of peripheral devices to an overall system, thus allowing the user to perform a variety of functions (para. 2, lines 1-6 of Hymel). Therefore, it would have been obvious to combine Hymel with Sugiyama in view of Krumm, Katsuo and Korman.

Sugiyama in view of Krumm, Katsuo, Korman and Hymel does not disclose expressly that the group consists not only of a DVD, a video cassette tape, a CD, an audio cassette tape, a computer disk, and a computer-readable medium, but also a flash card and an SD disk.

Kleinrock discloses storing digital data on a flash card (column 7, lines 34-35 of Kleinrock).

Sugiyama in view of Krumm, Katsuo, Korman and Hymel is analogous art with respect to Kleinrock because they are from similar problem solving areas, namely the control of data storage and output. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have available for selection a flash card. The suggestion for doing so would have been that a flash card is simply another of many possible storage devices from which to choose (column 7, lines 34-36 of Kleinrock). Therefore, it would have been obvious to combine Kleinrock with Sugiyama in view of Krumm, Katsuo, Korman and Hymel.

Sugiyama in view of Krumm, Katsuo, Korman, Hymel and Kleinrock does not disclose expressly that the group consists not only of a DVD, a video cassette tape, a CD, an audio cassette tape, a computer disk, a computer-readable medium, and a flash card, but also an SD disk.

Gerber discloses storing digital data on an SD disk (column 10, lines 28-34 of Gerber).

Art Unit: 2625

Sugiyama in view of Krumm, Katsuo, Korman, Hymel and Kleinrock is combinable with Gerber because they are from similar problem solving areas, namely the control of data storage and output. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have available for selection an SD disk. The motivation for doing so would have been that an SD disk is useful for backing up large amounts of digital data (column 10, lines 23-34 of Gerber). Therefore, it would have been obvious to combine Gerber with Sugiyama in view of Krumm, Katsuo, Korman, Hymel and Kleinrock to obtain the invention as specified in claims 17, 43 and 63.

12. Claims 18 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugiyama (US Patent 5,633,723) in view of Krumm (USPN 6,611,622), Katsuo (USPN 5,721,883), and Kimura (US Patent 5,270,989).

Regarding claims 18 and 44: Sugiyama in view of Krumm and Katsuo does not disclose expressly that said electronic output system comprises a handling mechanism to accommodate a plurality of removable storage devices.

Kimura discloses a handling mechanism (figure 1(6) of Kimura) that accommodates a plurality of removable storage devices (column 4, lines 46-52 of Kimura).

Sugiyama in view of f Krumm and Katsuo is analogous art with respect to Kimura because they are from similar problem solving areas, namely processing and storing digital output data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to provide a handling mechanism to handle a plurality of removable storage devices, as taught by Kimura. The motivation for doing so would have been to be able to store and select from among a plurality of different available removable storage devices (column 2, lines 38-42 of Kimura). Therefore, it would have been obvious to combine Kimura with Sugiyama in view of f Krumm and Katsuo to obtain the invention as specified in claims 18 and 44.

13. Claims 19 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugiyama (US Patent 5,633,723) in view of Krumm (USPN 6,611,622), Katsuo (USPN 5,721,883), Kimura (US Patent 5,270,989), Takemasa (US Patent 5,136,563), and Morinaga (US Patent 4,734,898).

Regarding claims 19 and 45: The arguments regarding claims 18 and 44 are incorporated herein. Kimura further discloses selecting between handling devices (such as Laser Disc or CD) (column 5, lines 23-30 of Kimura). Both handling devices are of the tray type (column 5, lines 20-27 of Kimura).

Sugiyama in view of Krumm, Katsuo and Kimura does not disclose expressly that the group of handling mechanism from which the handling mechanism is selected consists not only of a tray, but also of a feeder and a bandolier.

Takemasa discloses a feeder type handling mechanism (figure 2b; figure 18; and column 5, lines 52-67 of Takemasa).

Sugiyama in view of Krumm, Katsuo and Kimura is analogous art with respect to Takemasa because they are from similar problem solving areas, namely processing and storing digital output data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include the feeder type handling mechanism taught by Takemasa as another type of handling mechanism from which to choose. The motivation for doing so would have been to provide for compact and reliable insertion and switching of the removable storage devices (column 2, lines 14-16 of Takemasa). Therefore, it would have been obvious to combine Takemasa with Sugiyama in view of Krumm, Katsuo and Kimura.

Sugiyama in view of Krumm, Katsuo, Kimura and Takemasa does not disclose expressly that said group of handling mechanism from which the handling mechanism is selected consists not only of a feeder and a tray, but also of a bandolier.

Morinaga discloses a bandolier type handling mechanism (figure 3a and column 4, lines 53-62 of Morinaga).

Sugiyama in view of Krumm, Katsuo, Kimura and Takemasa is analogous art with respect to Morinaga because they are from similar problem solving areas, namely processing and storing digital output data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include the bandolier type handling mechanism taught by Morinaga as another type of handling mechanism from which to choose. The motivation for doing so would have been to be able to store even more removable storage devices that with the tray or feeder type handling mechanisms while preventing damage to the removable storage devices (column 2, lines 14-24 of Morinaga). Therefore, it would have been obvious to combine Morinaga with Sugiyama in view of Krumm, Katsuo, Kimura and Takemasa to obtain the invention as specified in claims 19 and 45.

Art Unit: 2625

14. Claims 20, 46 and 64-65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugiyama (US Patent 5,633,723) in view of Krumm (USPN 6,611,622), Katsuo (USPN 5,721,883), and Steinberg (US Patent 6,000,030).

Regarding claims 20 and 46: Sugiyama in view of Krumm and Katsuo does not disclose expressly that said electronic output system comprises a media writer selected from a group consisting of a disposable media writer and a self-destructing media writer.

Steinberg discloses a disposable media writer (column 4, lines 16-20 of Steinberg) and a self-destructing media writer (column 5, lines 28-36 of Steinberg).

Sugiyama in view of Krumm and Katsuo is analogous art with respect to Steinberg because they are from similar problem solving areas, namely the control and storage of digital data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to provide for digital data output a group of media writers consisting of a disposable media writer and a self-destructing media writer, as taught by Steinberg. The motivation for doing so would have been prevent unauthorized access to computer files (column 1, lines 43-50 of Steinberg). Therefore, it would have been obvious to combine Steinberg with Sugiyama in view of Krumm and Katsuo to obtain the invention as specified in claims 20 and 46.

Regarding claims 64 and 65: Sugiyama in view of Krumm and Katsuo does not disclose expressly that a disposable media writer produces the electronic output; or a self-destructing media writer produces the electronic output.

Steinberg discloses a disposable media writer producing an electronic output (column 4, lines 16-20 of Steinberg) and a self-destructing media writer producing an electronic output (column 5, lines 28-36 of Steinberg).

Sugiyama in view of Ishikawa is analogous art with respect to Steinberg because they are from similar problem solving areas, namely the control and storage of digital data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to provide digital data output *via* a disposable media writer or a self-destructing media writer, as taught by Steinberg. The motivation for doing so would have been prevent unauthorized access to computer files (column 1, lines 43-50 of Steinberg). Therefore, it would have been obvious to combine Steinberg with Sugiyama in view of Ishikawa to obtain the invention as specified in claims 64 and 65.

Art Unit: 2625

Conclusion

15. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES A. THOMPSON whose telephone number is (571)272-7441. The examiner can normally be reached on 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward L. Coles can be reached on 571-272-7402. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Edward L. Coles/
Supervisory Patent Examiner, Art Unit 2625

/J. A. T./
Examiner, Art Unit 2625

08 April 2008